

Refutation of Kramers-Kronig relation © Copyright 2018 by Colin James III All rights reserved.

We assume the apparatus and method of Meth8/VL4.

We evaluate literature.cdn.keysight.com/litweb/pdf/5990-5266EN.pdf where

Consider our odd function $ho(t)$, then multiply it by the signum function illustrated in Figure 3 [a step-wise, continuous function] and defined as:

$$signum(t) = -1 \text{ if } t < 0 \text{ and } signum(t) = 1 \text{ if } 0 < t \tag{1.1}$$

LET $p, q, 1, 0 : signum(t); t; (p \# q); ((p \# q) - (p \# q))$.

The designated *proof* value is T. Other values are F contradiction, N non-contingency (truthity), and C contingency (falsity). The 16-valued truth table is row-major and horizontal.

$$((q > ((p \# p) - (p \# p))) > (p = (p \# p))) \& ((q < ((p \# p) - (p \# p))) > (p = \sim(p \# p))) ; CNTF \ CNTF \ CNTF \ CNTF \tag{1.2}$$

Eq. 1.2 as rendered is *not* tautologous. This means the Kramers-Kronig relation is refuted.